

**ADOT MPD
STATEWIDE STORMWATER & EROSION CONTROL STUDY
WORK PLAN**

TASK 1: PROJECT MANAGEMENT

1A. ADOT Project Manager Kick-off Meeting

The Michael Baker Team will schedule a meeting with the ADOT PM and other ADOT staff to refine and finalize the project work plan and schedule, review and confirm all data collection sources and methods, confirm TAC member representation and project communication protocol, scheduling, and draft agenda items for the first TAC meeting, and confirm invoicing procedures and expectations.

Deliverables: Prepare and attend kick-off meeting

TASK 2: DEVELOP FINAL WORK PLAN

2A. Finalize Work Plan

With information obtained in the completion of Task 1, we will prepare the Final Work Plan, schedule, and TAC roster with contact information.

Deliverables: Project Work Plan

Project Schedule

TAC Roster and Contact Information

2B. TAC Meeting #1 - Project Introduction & Confirmation of Project Needs/Objectives

Soon after the data collection process commences, Michael Baker will coordinate through the ADOT PM to schedule the first TAC meeting. It is anticipated that the TAC will generally consist of the ADOT PM, ADOT District staff and representatives of the ADOT Environmental Planning staff. TAC Meeting #1 (and all subsequent TAC meetings) will be scheduled to have the flexibility to attend in person or via Webinar for convenience of ADOT Districts. The objective of TAC Meeting #1 will be to: 1) review the Project Work Plan and Schedule; 2) review Michael Baker Team and ADOT staff roles, responsibilities and communication protocol; 3) review and confirm all data collection sources and data needs identification (list and nature of identified projects by District; 4) identify and discuss ADOT District and Environmental staff project needs, concerns and objectives for the project; and 5) project next steps.

Deliverables: Prepare all TAC meeting Materials (PPT, agenda, handouts)
TAC Meeting #1 Summary

TASK 3: PRIORITIZATION MODEL DEVELOPMENT

3A. Initiate Data Source Identification & Collection for Prioritization Model

The Michael Baker Team, in consultation with the ADOT TAC, will identify the data sources necessary and collect available data to contribute to the prioritization model development. Potential considerations for the model will include data that addresses public safety, regulatory mandates, strategic value for the department, environmental benefits, cost (capital improvement, maintenance and life cycle costs), ease of implementation, public support, resource impacts, reduction of flooding, and hazard reduction. Drawing from our ADOT FIS experience, knowledge of ADOT operations, existing contacts and stormwater/transportation industry knowledge, we will collect information from available sources including FIS, PECOS (maintenance management system), ADOT Photo Log, and District interviews, to create a comprehensive list of datasets to consider as input points for the prioritization model. Preliminary datasets (shape files or lists) would include information from ADEQ including, waters of the US, the impaired waters and outstanding waters list, MS4 boundaries, ADOTs MS4 maps, Section 404 maps, adjacent MS4 maps, ADOT environmental data considerations existing in FIS and others as identified by the TAC and consultant team. As part of this evaluation, the Michael Baker Team will conduct phone calls with each ADOT District to thoroughly understand their requested projects, issues and concerns; inventory of the anticipated 70-90 ADOT stormwater projects. Additional information as needed will be explored and verified in Task 1 to supplement additional information needed for the dataset evaluation process. This task assumes that all information collected will be from available information sources and does not include field studies.

Deliverables: Data Collection Log
ADOT District Phone Call Summaries

Task 3B. GIS Mapping of ADOT and Adjacent MS4s

In a GIS format compatible with the ADOT geospatial guidelines, Michael Baker will prepare GIS features mapping to supplement ADOTs map book, existing map features and data layers. ADOT's MS4 permit specifies that ADOT maintain existing MS4 maps, including all ADOT outfalls within the regulated MS4. Accordingly, Consultant intends to utilize existing available mapping data from ADOT and this task.

The TAC will assist the Michael Baker Team in identifying/refining desired mapping features/information, but a preliminary list includes: 1) MS4 exterior boundaries adjacent to ADOT and areas of potential overlap; 2) To the extent such information is available through ADOT information sources, each MS4 discharge location(s) and elevation; 3) relevant ADOT environmental datasets captured in FIS; 4) locations of illicit discharges; 6) other information as determined by the TAC, and 5) breakout/repackaging of the above data into TAC desired data sets (i.e., by District boundary). This task assumes that all information collected will be from available information sources and does not include field studies.

This task does include Consultant time to initiate telephonic and/or email correspondence with representatives of existing identified MS4's to request and potentially obtain GIS files for each respective MS4 discharge location(s) and elevation data. This task also acknowledges that the Consultant may not be able to collect said GIS information, as MS4 representatives are not legally obligated to provide said information and/or may not possess this information in a GIS file format. Consultant invoicing for mapping tasks will be limited to just those MS4's in which Consultant successfully obtains said MS4 GIS files to prepare map deliverables for this task.

Deliverables: MS4 & Existing Conditions GIS Atlas
PDF Version of Map Atlas

3C. Working Paper #1: Comprehensive Needs Identification, Inventory & Analysis

At the conclusion of Tasks 2B-3B, we will prepare Working Paper #1 (WP#1): Comprehensive Needs Identification, Inventory and Analysis. WP#1 will analyze the results of the GIS mapping, highlighting TAC-identified issues and priorities.

WP#1 will also analyze and break down the characteristics of the anticipated 70-90 project types (and likely mitigation needs) into two primary classifications: construction or maintenance activities. Only construction activities will be included for scoring in the prioritization model (Task 3E). Michael Baker Team evaluation and analysis of each of the anticipated 70-90 project elements will identify a set of common needs – such as failed stabilization and erosion control, overtopping and embankment protection, slope washout, soil type, undersized infrastructure, improper construction, low water crossings, downstream impacts, etc. The analysis of these needs will determine if the project is identified as a construction or maintenance project and sets the table for determining possible mitigation measures to improve the existing condition. This information will be evaluated with the MS4 mapping areas and features inventory and will inform the categorization and prioritization of various project types in Task 3E and 4A.

Deliverables: Draft WP #1

Incorporation of TAC Comments
Final Draft WP #1

3D. TAC Meeting #2: Review of Working Paper #1

TAC Meeting #2 will have the following meeting objectives: 1) receive input on the GIS Map Atlas (Task 3B); 2) receive comment and direction on Working Paper #1 (Task 3C); and 3) obtain preliminary feedback on potential evaluation criteria categories and relative importance (weighting) of each.

Deliverables: Prepare all TAC meeting materials (PPT, agenda, handouts)

Michael Baker Team preparation and attendance (up to 3 staff) to TAC Meeting #2

TAC Meeting #2 Summary Report

3E. Develop Draft Evaluation Criteria, Weighting and Prioritization Model Tool

Drawing from Michael Baker stormwater and transportation project experiences in Arizona and other states, and guidance from ADOT P2P technical evaluation criteria, Michael Baker will incrementally establish a TAC consensus-based prioritization model that consists of a comprehensive set of quantitative, objective and equitable evaluation criteria and weighting.

We will use the following steps to establish these criteria: 1) Our team to develop draft set of criteria for TAC review; 2) Email draft criteria to TAC for their input, make adjustments as needed; 3) Once criteria confirmed, we will develop a Survey Monkey survey of TAC members to gage their individual “relative importance” of each evaluation criteria (i.e. assigning # of points or weighting to each criteria); 4) using an Excel platform, we will average and weight the cumulative values of the responses and assign weights to individual evaluation criteria; 5) Email TAC to confirm base prioritization model tool; 6) using TAC feedback, make final adjustments to the prioritization model tool as needed.

In addition to the list of the potential evaluation criteria identified in the ADOT RFP, recognizing that these stormwater projects must compete for District funding under the ADOT P2P scoring and process, Michael Baker suggests ADOT P2P technical evaluation criteria under the P2P modernization criteria should be incorporated into the prioritization model. These could include – economic driver scores (corridor/facility significance, freight flow), safety score (is there a connection to crash rate/location), supports statewide plans/policies, funding source availability, etc.

Deliverables: Draft Evaluation Criteria

TAC Survey Monkey of Evaluation Criteria Weighting

Analysis of Cumulative Values/Responses and Develop Criteria Weighting

Draft Prioritization Model Tool (Excel spreadsheet with ranking methodology)

Various TAC Phone and Email Correspondence

TASK 4 – NEEDS IDENTIFICATION/PROJECT SCORING

Task 4A: Working Paper #2 - Application of the Prioritization Model Tool: Project Scoring Results

With the completion of Tasks 3C - 3E, the Michael Baker Team will “run the prioritization tool” (Excel platform) by applying the various project categories/activities (derived from Task 3E) and score them with the evaluation criteria and weighting to yield a prioritized program of projects. The draft scoring results and supplemental narrative to summarize finding, themes and/or outlier scores/unexpected outcomes will be explained in this Working Paper #2 (WP#2). WP#2 will be reviewed with the ADOT PM and distributed to the TAC for their review and comment.

Deliverables: WP#2 - Draft Prioritization Tool Scoring Results

Task 4B: TAC Meeting #3: Review Prioritization Model Project Scoring Results (WP#2)

The Michael Baker Team will prepare for and attend TAC Meeting #3 to review the draft prioritization tool scoring results. The TAC discussion will explore the scoring results, confirm that the results met TAC expectations, identify any outlier scores and potential adjustments to the criteria or weighting, and otherwise seek TAC concurrence on project ranking and priorities. This TAC meeting will also identify and discuss general design parameters for various project types that will be performed in Task 5. We will incorporate any adjustments and finalize the prioritization model scoring results and identify the top 20 projects that will move forward to project scoping elements.

Deliverables: Prepare all TAC meeting materials (PPT, agenda, handouts)

TASK 5: WORKING PAPER #3: DEVELOP PROJECT SCOPING ELEMENTS AND COST ESTIMATES

Our team will determine project scoping elements and planning level cost estimates for the top 20 prioritized projects utilizing the ADOT E2C2 historical cost estimator tool.

Drawing from selected guidance from ADOT’s Project Scoping Document Guidelines, (but also recognizing that projects require a level of scoping commensurate with the type of proposed work), scoping elements will define the conceptual design and cost for each of the identified top 20 projects. Our multi-disciplinary team will work together to develop Context Sensitive Solutions to meet the environmental and transportation needs of each project commensurate with the proposed work. The Project Scoping Elements Report will be

similar in format and content to a Scoping Letter, including key items such as background data, scope of improvements described, required actions, and an itemized cost estimate. Each project scope will be summarized succinctly in an overall Project Scoping Elements Report. Working Paper #3 will be distributed to the TAC for their electronic review with any comments submitted back to the ADOT PM.

Deliverables: Project Scoping Elements Report with planning level cost estimates

TASK 6: WORKING PAPER #4 - IMPLEMENTATION GUIDANCE DOCUMENTS: SUMMARY OF PROJECT OBJECTIVES, PROCESS, RATIONALE & CONCLUSIONS

The Michael Baker Team will prepare WP#4. WP#4 will explain the rationale, inputs, analysis and methods going into the creation of the prioritization model, the interpretation and relative importance of the model results and how they should be interpreted. WP#4 will also include a discussion on how these projects will compete annually in the ADOT P2P process and also how the prioritization model will be a replicable and used in the programming of projects in future years. Working Paper #4 will be distributed to the TAC for their electronic review with any comments submitted back to the ADOT PM.

Deliverables: Draft Working Paper #4 Implementation Guidance Document (TAC comments will be incorporated into Task 7)

TASK 7: DRAFT FINAL REPORT

The Michael Baker Team will prepare the Draft Final Report that summarizes the analysis and findings of Tasks 3 - 6.

Deliverables: Draft Final Report

TASK 8: FINAL REPORT

Incorporating the comments and suggested edits from the TAC on the Draft Final Report (Task 7), Michael Baker will prepare the Final Report.

Deliverables: Final Report

Incorporate TAC comments and edits (if needed)
Complete Final Report

TASK 9: GIS DATA AND STUDY CLOSEOUT FILES

In accordance with the data parameters and protocol identified in the RFP (RFP Task 9), the Michael Baker Team will provide all GIS geodatabase, associated attributes tables, and electronic project deliverables at the project conclusion.

Deliverables: GIS Geodatabase and attributes table via CD and/or thumb drive
GIS Metadata in XML file format
KMZ files